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September 5, 2003

TO: Minerals File

FROM: Paul Baker, Senior Reclamation Biologist

SUBJECT: Site Inspection, U. S. Energy, Velvet Mine, M/037/040, San Juan County, Utah

Date of Inspection:	August 8 and 19, 2003
Time of Inspection:	About 12:30 to 1:30 p.m. on August 8; and about 1:45 to 3:30 p.m. on August 19
Conditions:	Both days were mostly clear and warm
Participants:	Fred Craft, U. S. Energy; Jim Butt, Contractor; Doug Jensen and Paul Baker, DOGM

Purpose of Inspection:

The operator was in the process of regrading the site, and we wanted to ensure the grading was adequate before equipment was taken away.

Observations:

On August 8, the operator had not quite finished the grading, so we discussed certain things that should be done before grading was completed. When we visited the site on August 19, the grading was almost done. The contractor was finishing spreading the limited soil on top of the waste pile. The slopes were basically complete with just a little more work that needed to be done on the terraces.

The site consists primarily of a pad made from waste material which has now been graded so the maximum slope is about 3h:1v. It is something of a convex slope, but the operator has created a berm at the edge of the flatter top portion of the pile. This berm should direct any runoff water to a natural drainage to the west. The upper terrace on the steeper portion of the outslope will direct runoff to the east, and the lower terrace will send it west. We believe this system of berms and terraces should help reduce runoff going straight down the slope and reduce the amount of erosion. Some of the berms are shown in Photos 1 and 2.

Mr. Crafts took some soil samples, and although the salt levels are higher than would be ideal, they should not be limiting to most native species. The texture is a sandy loam which I consider to be ideal. The organic matter content is, as expected, extremely low.

The water treatment pond has been backfilled and graded. The vent shafts have been sealed and covered with soil. Mr. Craft sent me pictures of the shafts after steel reinforcing material was placed on top of them and after the concrete was poured (Photos 3 and 4). All that is now visible at the shafts is mounds of dirt about 2-3 feet high.

The culverts in the roads have been removed, and a berm has been built in the road leading to the pond. Quite a bit of substitute topsoil was salvaged from the mine access road near the place from which the culvert was taken. Mr. Craft did not take samples of this soil, but it appears to be derived from sandstone and is unlikely to have chemical or physical problems.

Conclusions and Recommendations:

My only recommendation for soil amendments is to add some organic matter in the form of hay or composted manure in the areas where there is no substitute topsoil. I do not believe this is absolutely necessary, but it would probably increase water holding capacity and the amount of nitrogen in the soil. Preferred rates would be about one or two tons per acre of alfalfa or five tons per acre of composted manure. These would be applied before the surface was roughened.

Right now, the surfaces are very smooth, and it is important that they be rough. Roughening should be done immediately before seeding so there is no chance for a surface crust to form on the soil. If the areas are ripped, the ripping should be done on the contour with ripper bars spaced no more than about three feet apart.

Seeding needs to be done in the fall, preferably between about October 15 and December 1. It definitely should not be delayed until winter or spring.

The Division needs to calculate a revised bond based on the grading that has been completed. The Division will need to retain enough bond to reseed the site, but from all we could see, the grading has been adequate (or better).

PBB:jb
cc: Fred Craft, U. S. Energy
Ted McDougall, Monticello BLM
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ATTACHMENT
Photographs
M/037/040, Velvet Mine, U. S. Energy
Inspection Dated: August 8 and 19, 2003; Report Dated: September 5, 2003

Photo 1. A portion of the regraded slope looking approximately east. Note the terraces or berms on the slope.

Photo 2. Another view of the regraded slope.

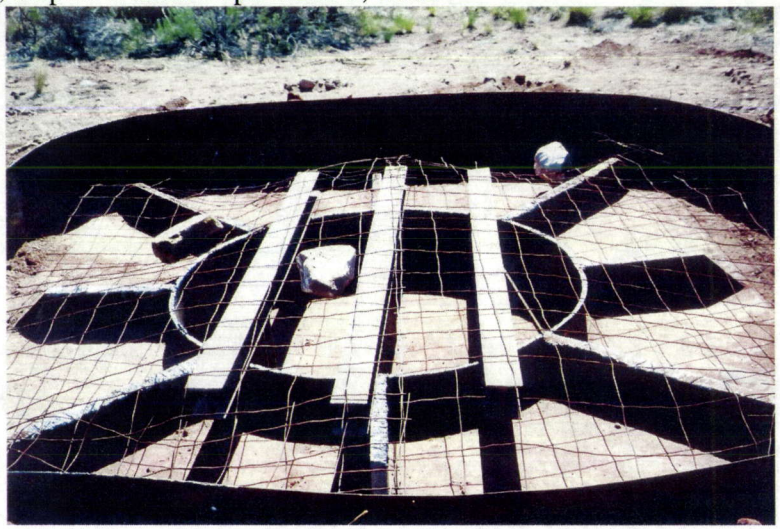

Photo 3. Reinforcing material for one of the vent shafts. (Photo from Fred Craft.)

Photo 4. Vent shaft after the concrete cap was poured. This may have been where the headframe was. (Photo from Fred Craft.)